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REMARKS/ARGUMENTS

In view of the following remarks, applicants request favorable reconsideration of the outstanding office action.

Claims 1-14, 16-30 and 33-37 remain in this application. Claim 1 has been amended and claim 15 has been cancelled. Claims 38-58 have previously been withdrawn as a result of an earlier restriction requirement. In view of the examiner's earlier restriction requirement, applicant retains the right to present claims 38-58 in a divisional application.

§ 102 Rejections

Applicants respectfully traverse the rejection of claims 1, 13-16, and 20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,148,218 (Knowles).

Claim 1 has been amended to include the limitation of claim 15, and thus requires that the tension between the capstans is monitored during the draw process via a load cell and that the speed of one of the capstans is adjusted in response to feedback from the load cell about the monitored tension. There is no mention or suggestion in any of the references cited of adjusting the speed of one or more capstans in response to feedback about the measured tension from a load cell.

According to the Examiner, "it is noted that the claims do not require the tension to be measured: in applicant's embodiment, the load cell would detect a force equal to twice the tension." Applicants disagree, and submit that Examiner's own comment indicates that tension is being measured (i.e., the load cell is measuring a force equal to twice the tension). The claims clearly require that the fiber tension between the capstans is monitored during the draw process and the speed of one of the capstans is adjusted in response to the monitored tension to maintain a desired tensile screening force on the fiber. Monitor is defined in the American Heritage Dictionary as "to keep track of by or as if by an electronic device" or "to scrutinize or check systematically with a view to collecting certain specified categories of data" (see copy of definition which is enclosed herewith). Even if, assuming arguendo, that Examiner is correct in indicating that the load cell would detect a force equal to twice the tension, this is irrelevant, as even in this situation the fiber tension would be measured, albeit perhaps not entirely accurately. On the other hand, Applicants

submit that even if the load cell did detect a force equal to twice the tension, in fact this would be an accurate measurement because the operator would know that this is the case.

Applicants disagree that it would have been obvious to draw the fiber as fast as possible so as to make as much fiber as possible. The Examiner has indicated that, once the fiber is pulled through the second tractor assembly, the speed of the tractor assembly is reduced causing the constant torque device to overload and the clutch to slip. Obviously, the faster one draws the fiber the more the clutch will slip, possibly and even probably to the point where if you pull it as fast as possible, as the Examiner suggests, then it will likely apply little or no torque at all to the optical fiber. Consequently, applicants submit that there would be no motivation to modify Knowles as proposed by the Examiner, and based on the Examiner's own comments, applicants believe that one skilled in the art would be motivated not to try to increase the draw speed.

With respect to claim 15, the Examiner indicates that "it is noted that the term "load cell" is not defined in the specification." It is well known that a load cell is a transducer used to measure force or weight. Load cells convert weight or force into electrical signals which can be used to actuate or drive a variety of measuring or control apparatus. It is clear that the Knowles clutch is not a load cell.

Claims 1 and 20 both requires that the tension in said fiber between said screener capstan and said another capstan is monitored and the circumferential speed of said screener capstan is adjusted in response to said monitored tension. According to the Patent Office, in Knowles, "the clutch mechanically monitors the tension." Applicants do not understand this statement. As mentioned above, "monitor" is defined in the American Heritage Dictionary as "to keep track of by or as if by an electronic device" or "to scrutinize or check systematically with a view to collecting certain specified categories of data". Page 10, lines 26-29, of applicants' specification indicates that "turn around pulley 22 is connected to a load cell which monitors the amount of tension applied onto the turn around pulley by the passing fiber, and thus monitors the amount of tension being imparted to the fiber." Similarly, page 11, lines 7-9, indicate that "Feedback from the load cell of the turn around pulley 22 is used to adjust the differential speed of the screening capstan 24 so that a sufficient screening tension is maintained consistently throughout drawing of the

entire optical fiber blank into optical fiber.” Thus, clearly, in applicants’ case, an electronic device keeps track of the tension, and collects information about that tension which is then used to adjust the circumferential speed of said screener capstan, depending on whether the tension is too high or too low. Consequently, it is clear that the Knowles device does not “monitor” the tension as that term is employed in applicants specification and claims.

§ 103 Rejections

Applicants respectfully traverse the Examiner’s rejection of claims 4-12, 23-30, 33-35 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,148,218 (Knowles), and further in view of U.S. Patent No. 5,787,216 (Bice).

As applicants indicate on page 9, lines 14 through 18, “because the spool enables access to both ends of the fiber, optical and other testing can be conducted on the fiber which is stored upon spool 15 after the fiber draw and winding process, without having to remove the entire length of fiber from the spool or rethread the fiber onto a different spool.” Thus, it is clear from applicants’ specification that, by access, applicants mean that the spool must enable both ends of the fiber to be mechanically accessed. An example of such a spool which will enable such access to both ends of the fiber is illustrated in Fig. 6, which of course the above description is directed to.

Applicants respectfully traverse the Examiner’s rejection of claims 2-3, 11, 17-19, 21-22, and 36-37 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,148,218 (Knowles).

With respect to claim 17, applicants do not understand the comment that “there is no disclosure of using a computer.” On page 4, lines 4 through 6, applicants indicate that “a computer can be used to monitor the tension in said fiber via the load cell and adjust the speed of the screener capstan accordingly.” Similarly, on page 5, lines 27 through 30, applicants indicate that “a computer control is provided for receiving input from the load cell and adjusting the speed of the first or second capstan assemblies to aid in maintaining a uniform tensile stress or within a desired range of tensile stress.” Applicants submit that these are disclosures of using a computer.

Based upon the above amendments, remarks, and papers of records, applicant believes the pending claims of the above-captioned application are in allowable form

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and patentable over the prior art of record. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Applicant believes that no extension of time is necessary to make this Reply timely. Should applicant be in error, applicant respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Robert L. Carlson at 607-974-3502.

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Respectfully submitted,



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